

Notice of Allowability

Application No.

09/973,613

Applicant(s)

KUBO ET AL.

Examiner

Chieh M. Fan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 5/24/05.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☒ The drawings filed on 24 May 2005 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian S. Myers on 08/03/05.

The application has been amended as follows:

In the claims:

- a. In claim 2, line 12, "the output signal" has been changed to --- an output signal ---.
- b. In claim 4, line 6, "the phase of said reference" has been changed to --- a phase of said reference ---.
- c. In claim 4, line 8, "the phase of said feedback" has been changed to --- a phase of said feedback ---.
- d. In claim 5, line 6, "the phase of said feedback" has been changed to --- a phase of said feedback ---.
- e. In claim 7, line 2, "the sign" has been changed to --- a sign ---.

- f. In claim 8, lines 9-10, "said determined phase difference" has been changed to --- the determined phase difference ---.
- g. In claim 9, lines 7-8, "said determined phase difference" has been changed to --- the determined phase difference ---.
- h. In claim 10, line 5, "said determined phase difference" has been changed to --- the determined phase difference ---.
- i. In claim 11, lines 5-6, "said determined phase difference" has been changed to --- the determined phase difference ---.
- j. In claim 11, line 6, "the output signal" has been changed to --- an output signal ---.
- k. In claim 12, lines 5-6, "said determined phase difference" has been changed to --- the determined phase difference ---.
- l. In claim 12, line 6, "the output signal" has been changed to --- an output signal ---.
- m. In claim 16, line 7, "the value output" has been changed to --- a value output ---.
- n. In claim 16, line 8, "the count value" has been changed to --- a count value ---.
- o. In claim 17, lines 9-10, "said detected phase difference" has been changed to --- the detected phase difference ---.
- p. In claim 17, line 10, "the output signal" has been changed to --- an output signal ---.

- q. In claim 18, line 7, "said detected phase difference" has been changed to -
-- the detected phase difference ---.
- r. In claim 19, line 4, "the digital-phase component" has been changed to ---
the in-phase component ---.
- s. In claim 19, line 5, "the result" has been changed to --- the demodulated
feedback signal ---.
- t. In claim 19, lines 7-8, "said detected phase difference" has been changed
to --- the detected phase difference ---.
- u. In claim 19, line 8, "the output signal" has been changed to --- an output
signal ---.
- v. In claim 20, lines 5-6, "said detected phase difference" has been changed
to --- the detected phase difference ---.
- w. In claim 20, line 6, "the output signal" has been changed to --- an output
signal ---.
- x. In claim 21, lines 5-6, "said detected phase difference" has been changed
to --- the detected phase difference ---.
- y. In claim 21, line 6, "the output signal" has been changed to --- an output
signal ---.
- z. In claim 24, line 11, "said detected phase difference" has been changed to
--- the detected phase difference ---.
- aa. In claim 24, line 11, "the output signal" has been changed to --- an output
signal ---.

bb. In claim 25, lines 6-7, "said detected phase difference" has been changed to --- the detected phase difference ---.

cc. In claim 26, line 6, "a distortion-compensating signal" has been changed to --- a distortion-compensating signal using a distortion-compensating signal generator ---.

dd. In claim 26, lines 15-16, "said feedback produced by an signal" has been changed to --- said feedback signal ---.

Statement of Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-25, the prior art of record does not teach the combination of "a distortion-compensating signal generator", "a second digital/analog converter", "an adder" and "a first phase difference compensator" as recited in independent claim 1.

Claim 26 is a corresponding method claim of claim 1. Claim 26 is allowed for the same reason applied to claim 1 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M. Fan whose telephone number is (571) 272-

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3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM,
Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chieh M Fan
Primary Examiner
Art Unit 2638

cmf
August 4, 2005